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Listing of the Claims:

1 - 19. (Canceled)

20. (Currently Amended) A method of treating neonatal asphyxia in a mammal in need thereof,

said method comprising: (a) administering a therapeutically effective amount of xenon to the

mammal; and (b) subjecting the mammal to hypothermia.

21. (Previously Presented) A method according to claim 20 wherein the mammal is a human.

22. (Previously Presented) A method according to claim 20 wherein the xenon is administered in

combination with a pharmaceutically acceptable carrier, diluent or excipient.

23. (Previously Presented) A method according to claim 20 wherein the xenon is administered

by inhalation.

24. (Previously Presented) A method according to claim 23 wherein the xenon is administered in

the form of a 20 to 70% v/v xenon/air mixture.

25. (Previously Presented) A method according to claim 20 wherein the xenon is administered

by perfusion.

26. (Previously Presented) A method according to claim 20 to 22 wherein the xenon is

administered in the form of a solution or emulsion.

27. (Previously Presented) A method according to claim 26 wherein the xenon is administered in

the form of a lipid emulsion.

28. (Previously Presented) A method according to claim 26 wherein the xenon is administered

intravenously, neuraxially or transdermally.

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29. (Currently Amended) A method according to claim 20 wherein the xenon is administered

simultaneously, sequentially or separately with hypothermia.

30. (Previously Presented) A method according to claim 29 wherein the xenon is administered

simultaneously with hypothermia.

31. (Previously Presented) A method according to claim 20 wherein the temperature of the

mammal is maintained at a temperature of from about 32°C to about 36°C.

32. (Previously Presented) A method according to claim 31 wherein the temperature of the

mammal is maintained at a temperature of from about 33°C to about 35°C.

33. (Previously Presented) A method according to claim 20 wherein the hypothermia is

maintained for a period of at least 6 hours after the hypoxic-ischemic (HI) insult.

34. (Previously Presented) A method according to claim 20 wherein the hypothermia is

maintained for a period of from about 6 to about 24 hours after the hypoxic-ischemic (HI) insult.

35. (Previously Presented) A method according to claim 20 wherein the xenon is administered to

the mother of the mammal prior to birth.

36. (Previously Presented) A method according to claim 35 wherein the xenon is administered to

the mother of the mammal prior to, or during, labour.

37. (Previously Presented) A method according to claim 35 wherein the xenon is administered to

the mother of the mammal for up to about 24 hours prior to birth.

38. (Previously Presented) A method according to claim 20 wherein the xenon is administered in

a therapeutically effective amount.

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a sub-therapeutically effective amount.

40. (Currently Amended) A method according to claim 20 wherein the xenon is administered in

39. (Previously Presented) A method according to claim 20 wherein the xenon is administered in

a combination with an aesthetic anesthetic selected from the group consisting of isoflurane,

sevoflurane and desflurane.

41. (Previously Presented) A method of treating neonatal asphyxia in a mammal in need thereof,

said method comprising administering a therapeutically effective amount of xenon to the

mammal in combination with hypothermia.

42-43. (Canceled)

44. (Currently Amended) A method of treating neonatal asphyxia in a mammal in need thereof,

said method comprising: (a) administering a therapeutically effective amount of xenon to the

mother of the mammal prior to and/or during labour; and (b) subjecting the mammal to

hypothermia after birth.

45. (canceled)

46. (new) The method of claim 20, wherein the xenon is administered sequentially with

hypothermia.

47. (new) The method of claim 20, wherein the xenon is administered separately with

hypothermia.

48. (new) The method of claim 44, wherein the xenon is administered in a therapeutically

effective amount.

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49. (new) The method according to claim 44, wherein the xenon is administered in a subtherapeutically effective amount.